Table S1. Prevalence of NAFLD and MASLD among adults with Type 2 diabetes

Author, year [Ref] *	Method	Findings	Conclusion
Ajmera, 2023 [11]	Prospective study of 501 adults with T2D aged ≥50 years, recruited from either primary care or endocrinology practice. Steatosis was identified by MRI-PDFF ≥5% after exclusion of competing causes of liver disease. Advanced fibrosis and cirrhosis were defined by established liver stiffness cut-off points on MRE or VCTE (if MRE was not available).	The prevalence of NAFLD, advanced fibrosis and cirrhosis was 65%, 14% and 6%, respectively. In multivariable-adjusted models, adjusted for age and sex, obesity and insulin use were associated with increased odds of advanced fibrosis (odds ratio 2.50; 95% CI 1.38-4.54; *p*=0.003 and odds ratio 2.71; 95% CI 1.33-5.50; *p*=0.006, respectively).	The prevalence rates of advanced fibrosis and cirrhosis arer14% and 6%, respectively, highlighting the high risk of advanced fibrosis/cirrhosis in T2D subjects aged ≥50 years.
Forlano, 2024 [12]	A total of 287 unselected T2D patients from primary care were enrolled. USG and TE were used to determine steatosis and fibrosis, respectively.	64% of individuals had MASLD and the prevalence rates of MASLD-related significant fibrosis, advanced fibrosis, and cirrhosis were 17%, 11% and 3%, respectively. AT MVA significant and advanced fibrosis were predicted by WC, BMI, AST values, and educational achievements.	In primary care, MASLD screening among those with T2D is cost-effective and should be included in a holistic assessment.
Mittal, 2024 [13]	Prospective study of 530 T2D adults	Among T2D subjects the prevalence rates of MASLD, at-risk MASH and cirrhosis were 69.6%, 13.6% and 6.8%, respectively.	Approximately 14% of T2D patients may be eligible for drug treatment for MASH-related fibrosis.
Panikar, 2024 [14]	Cross-sectional study enrolling 1,521 T2D patients in specialty care. Liver fibrosis and steatosis were identified by VCTE using FibroScan.	The prevalence of liver steatosis and liver fibrosis were 75.1% and 28.0%, respectively. WC was associated with the severity of both steatosis and fibrosis stages (*p*=0.001), while BMI was	Steatosis and liver fibrosis are common in NAFLD among T2D patients, increasing the risk of advanced fibrosis. Abdominal and overall adiposity are independent risk

		associated with the degree of steatosis only (p=0.001).	factors for these hepatic disorders.
Romano, 2025 [15]	Steatosis using the HSI and the NRS and fibrosis (FIB-4 Index and NFS) were used to evaluate 4,664 adults enrolled in the CHMS.	Between 86-87% of adults with T2D had steatosis.	
Amangurbanova, 2025 [16]	Cross-sectional analysis of a prospective cohort study of 523 T2D adults without a diagnosis of hemochromatosis. MASLD was defined with MRI-PDFF and fibrosis with MRE.	Hyperferritinemia remained an independent predictor of MASLD (OR 2.01; 95% CI 1.19-3.39; p=0.009) and significant fibrosis (OR 2.33; CI 1.43-3.77; p=0.001), even after adjustment for confounding factors.	Among T2D subjects, hyperferritinemia may serve as a useful biomarker for MASLD and significant fibrosis.
Hadadi, 2025 [17]	Retrospective assessment of 168 T2D patients from multiple diabetes clinics. Steatosis was determined with USG.	The prevalence of MASLD was 68.4%. Uncontrolled T2D was associated with a 3-fold increased risk of MASLD (OR = 3.081).	By highlighting a strong association between uncontrolled diabetes and increased odds of MASLD, this study indirectly pinpoints the importance of metabolic compensation of T2D in attenuating MASLD risk.
Beyazal, 2025 [18]	Prospective evaluation of 128 individuals with newly diagnosed T2D. Steatosis was assessed with USG.	MASLD was detected in 80.4% of patients. ALT and BMI were independently associated with MASLD in linear regression.	The high prevalence of MASLD among newly diagnosed T2D subjects underscores the significance of early detection of this common liver condition in the diabetic population.
Balkhed, 2025 [19]	Survey of 309 T2D individuals from primary care. LFC was assessed with CAP and MRI.	59% of participants had MASLD, 7% had suspected advanced fibrosis (TE≥10 kPa), and 1.9% had cirrhosis. At MVA obesity was associated with an 8-fold increased risk of fibrotic MASLD.	In this cohort of primary care patients with T2D, 59% had MASLD, and 7% had suspected advanced fibrosis. Obesity was an independent predictor of fibrotic MASLD.
Bhuvanesswar, 2025 [20]	Retrospective analysis of 1,070 T2D subjects (from two diabetes clinics) who reported no alcohol intake.	Any degree of steatosis and fibrosis were present in 75.6% and 28.6%,	TE reveals that over 75.6% of individuals with T2D have

	Steatosis was assessed with CAP and fibrosis with LSM.	respectively, and were more common in women than in men.	hepatic steatosis and 28.6% have liver fibrosis.

*These studies were identifying searching for articles displaying the keywords “MASLD” OR “NAFLD” AND “Type 2 diabetes”.

List of abbreviations used: ALT -alanine transaminase, AST – aspartate transaminase, CAP - controlled attenuation parameter, CHMS - Canadian Health Measures Survey, FIB-4 – fibrosis 4 Index, HSI - Hepatic Steatosis Index , LFC – liver fat content; LSM -liver stiffness measurement, MAZSH – metabolic dysfunction-associated steatohepatitis, MRI – magnet resonance imaging, MVA – multivariate analysis, MRE – magnetic resonance elastography – NAFLD – nonalcoholic fatty liver disease; NFS -NAFLD fibrosis score , NRS - NAFLD Ridge Score;, OR – odds ratio, PDFF – proton density fat fraction; TE – transient elastography, T2D – type 2 diabetes, USG – ultrasonography, VCTE - vibration-controlled transient elastography WC – waist circumference.

Table S2. Meta-analytic studies assessing the risk of MASLD among individuals with type 2 diabetes

Author, Year [ref] *	**Method**	**Findings**	**Conclusion**
Ballestri, 2016 [21]	Meta-analysis of 20 published studies totalling 117,020 patients followed for a median of 5-years.	Irrespective of the methodology used to capture NAFLD, ALT, AST, GGT and USG NAFLD was associated with an increased risk of incident T2D [pooled RR of 1.97, 1.58, 1.86, and 1.86] respectively.	Irrespective of whether it is diagnosed by liver enzymes or ultrasonography) NAFLD is significantly associated with an increased risk of incident T2D over a median follow-up of 5 years.
Dai, 2017 [22]	Meta-analysis of 24 studies totalling 35,599 T2D patients (20,264 with NAFLD).	The pooled prevalence of NAFLD in T2D patients, by a random-effects model, was 59.67%.	The high NAFLD prevalence among T2D individuals underscores the importance of early assessment and management of NAFLD among T2D subjects.
Mantovani, 2018 [23]	Meta-analysis of 19 observational studies totalling 296,439 individuals (30.1% with NAFLD) and nearly 16,000 cases of incident T2D over a median of 5 years.	Compared to NAFLD-free controls, NAFLD subjects had higher odds of incident diabetes (random-effects HR 2.22, 95%. Patients with more "severe" NAFLD at USG were more at risk of developing incident diabetes and this risk was even greater among NAFLD patients with advanced high NFS.	NAFLD is associated with a 2-fold increased risk of incident diabetes.
Younossi, 2019 [24]	Meta-analysis of 80 studies totalling 49,419 T2D subjects.	The prevalence of NAFLD among T2D subjects was 55.5%, with studies from Europe reporting the highest	Data of global prevalence of NAFLD, NASH, and advanced fibrosis among

		prevalence (68.0%). At MMRA, geographic region and mean ages were significantly associated with NAFLD prevalence of NAFLD. The prevalence of NASH and advanced fibrosis among T2D subjects were 37.3% and 17.0%, respectively.	T2D subjects can be useful to evaluate the clinical and economical liver disease burden among T2D patients globally.
Ciardullo, 2022 [25]	Meta-analysis of 29 studies totalling 10,487 T2D patients.	Among T2D subjects, the prevalence of LSM in T2D was 19.8%. At MMRA, in T2D patients, BMI, age, male sex, VCTE cut-off and Asian ethnicity were associated with increased prevalence rates of elevated LSM.	One in five T2D patients has elevated LSM, indicating significant or advanced liver fibrosis
Gao, 2023 [26]	Meta-analysis 16 observational studies totalling 304,975 adults (7.7% with lean NAFLD) and nearly 1,300 cases of incident diabetes followed up over a median period of 5.05 years.	Compared to NAFLD-free controls, lean NAFLD individuals had a greater risk of incident diabetes (random-effects HR 2.72, 95% CI 1.56-4.74; I^2 = 93.8%). Compared to the lean, NAFLD-free controls, the adjusted HRs (95% CIs) of incident diabetes for participants in the overweight/obese without NAFLD and overweight/obese with NAFLD groups were 1.32 (0.99- 1.77) and 2.98(1.66-5.32) and the risk was greater among NAFLD patients with advanced high NFS NAFLD fibrosis score (random-effects HR 3.48, 95% CI 1.92-6.31).	Lean NAFLD is associated with at least a 2-fold increased risk of incident diabetes in non-overweight subjects and this risk parallels NAFLD severity.
Cho, 2023 [27]	Meta-analysis of 156 studies totalling 1,832,125 T2D patients.	The prevalence rates of NAFLD/NASH among T2D subjects were 65.04% and 31.55%, respectively. 35.54% of T2D individuals with T2D had F2-F4 fibrosis, whereas 14.95% had F3-F4).	There is a high prevalence of NAFLD, NASH and fibrosis among people with T2D.
Younossi, 2024 [28]	Meta-analysis of 123 eligible studies (totalling 2,224,144 T2D patients). Another 12 studies (totalling 2,733 T2D patients with liver biopsy) were eligible for histologic assessments.	The global prevalence of NAFLD/MASLD among T2D patients was 65.33%. The highest NAFLD/MASLD prevalence among T2D patients was observed in Eastern Europe, followed by the Middle East, and was lowest in Africa (53.10%, 26.05%-78.44%). Among patients with liver biopsy data, the global pooled prevalence of NASH/MASH, significant fibrosis, and advanced fibrosis was 66.44%, 40.78%, and 15.49%, respectively.	The prevalence of NAFLD/MASLD among T2D is high and growing. Most NAFLD/MASLD patients with T2D have NASH/MASH, and many have advanced fibrosis.

Shetty, 2025 [29]	Meta-analysis of 14 studies (5 cohort and 9 cross-sectional) totalling 370,013 participants.	The risk of CVE in T2D was higher in the MAFLD group than in the non-MAFLD group [OR 1.28 p=0.02] with a follow-up period ranging between 5-6 years.	The presence of MAFLD among T2D subjects is associated with an increased risk of CVE.

* These studies were retrieved using the following bibliographic research: Title: “Metanalysis” AND “NAFLD” OR “MASLD” and “type 2 diabetes”.

List of abbreviations used: ALT – alanine transaminase, AST – aspartate transaminase, CVD – cardiovascular disease, CVE -cardiovascular event, GGT – γ-glutamyl transferase, HR - hazard ratio, LSM – liver stiffness measurement, MMRA - Multivariate meta-regression analysis, - NAFLD – nonalcoholic fatty liver disease, NFS - NAFLD fibrosis score; MASLD – metabolic dysfunction-associated steatotic liver disease, RR – relative risk, T2D – type 2 diabetes, USG – ultrasono

Note: The references cited in the supplementary materials are those in the main text.